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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,412	03/29/2001	Junya Watanabe	14462	3674
23389	7590	04/05/2004	EXAMINER	
SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA GARDEN CITY, NY 11530			NAKHJAVAN, SHERVIN K	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 04/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,412

Applicant(s)

WATANABE, JUNYA

Examiner

Shervin Nakhjavan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 11 and 15 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 10, 12, 16, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 3-5, 8, 9, 13, 14 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1, 2 and 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 5 and 19 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 4 and 18, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
2. Claim 7, page 22, Line 9, the word "of" after enlargement should read --or --.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 3 Claims 7, 10, 16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al. (US 6,671,386).

Regarding claim 7, Shimizu teaches, an electronic watermark detecting device for detecting an electronic watermark pattern embedded in image or video data, said electronic watermark detecting device comprising: calculating means for calculating a scale of enlargement or reduction, on which the image or video is enlarged or reduced,

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according to a displacement information pattern embedded in the image or video data together with the electronic watermark pattern (Column 16, Lines 25-32, where the geometric transformation includes calculating means for calculating the scaling of the transformed embedded image being the enlargement or reduction of the image as discussed in Column 3, Lines 60-65 which); enlarging/reduction means for enlarging or reducing the image or video on the scale of enlargement or reduction calculated by said calculating means (Column 4, Lines 1-7, where upon calculating of the geometrical transformation including scaling, the image is corrected accordingly by enlarging or reducing of the image); and detecting means for detecting the electronic watermark pattern in the image or video enlarged or reduced by said enlargement/reduction means (Column 16, Line 32-33);

Shimizu teaches, limitation of claim 10, said enlarging/reducing means converts the resolution of an image or video, which is enlarged or reduced after having the electronic watermark pattern embedded therein, into the resolution attained immediately after the image or video has the electronic watermark pattern embedded therein (Column 16, Lines 29-32);

Shimizu also teaches the method of claims 16, 18 and 19 (claim 19 being the duplicate of claim 18) corresponding to function of the device claims 7 and 10 discussed above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (US 6,671,386).

Regarding claim 1, Shimizu teaches, an electronic watermark embedding device including an electronic watermark pattern embedding unit that embeds an electronic watermark pattern in input image or video data (Column 16, Lines 18-21), comprising: displacement information pattern embedding means for embedding a displacement information pattern, which is produced in advance, (Column 16, Lines 22-25, wherein at step 230 the predetermined pattern consisting of two dimensional waves embedded in the image, the pattern being equivalent to displacement information pattern because upon detecting the wave pattern in the image at the detector sight such as a fax machine, and comparing of the detected pattern to a predetermined pattern, the system calculates the coordinate transformation, including a rotational angle which is a form of a *displacement information* detected from the original wave pattern embedded as discussed regarding the details of the predetermined pattern in Column 3, Lines 51-66) in an image or video having the electronic watermark pattern embedded therein (Column 16, Lines 22-25, upon pattern being embedded, a watermark is embedded at step 240, and transmitting the resultant image or video (Column 15, Lines 50-58, where

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transmission of the image after embedding of information data is within the scope of the teachings);

Shimizu teaches limitations of claim 2, said displacement information pattern embedding means includes a displacement information pattern storage unit in which displacement information patterns are stored (Column 3, Lines 52-54, where at step 110 of the system of figure 1, patterns are created and stored in storage units inherently), and a displacement information pattern embedding unit for embedding the displacement information pattern (Column 16, Lines 22-24, the item 230), which is stored in the displacement information pattern storage unit, in the image or video having the electronic watermark pattern therein;

Shimizu teaches limitations of claim 12, electronic watermark embedding method Corresponding to function of the device of claim 1 (See claim 1 above).

While Shimizu fails to specifically teach the sequence of embedding of the electronic watermark pattern first and then the displacement information pattern in an image or video, Shimizu clearly teaches embedding of both the pattern that consists of displacement information as discussed in claim 1 and the watermark pattern in the image. Absent some showing of criticality or unexpected results, the exact sequence of embedding of the displacement information and watermark patterns is believed to be within the skill level of an ordinary practitioner in this art, who would find it obvious to choose the most appropriate embedding sequence for a given application because, in an additive process of watermarking, the final product will be the same regardless of which pattern gets added first.

Allowable Subject Matter

6. Claims 3, 4, 8, 9, 13, 14 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record specifically Shimizu in view of Honsinger et al. (US 5,835,639) does not teach the displacement information items resisting enlargement or reduction of claims 3, 9, 13 and 17; embedding electronic watermark pattern and displacement pattern, respectively, according to the embedding pixel intensity level determined by the image analyzing means of claims 4 and 14, combined with other features and elements of the claims.

7. The following is an examiner's statement of reasons for allowance: claims 6, 11 and 15 are allowed because, the prior art of record specifically Shimizu in view of Honsinger et al. does not teach embedding electronic watermark pattern and displacement pattern, respectively, according to the embedding pixel intensity level determined by the image analyzing means of claims 6 and 15, detailed structure of the calculating means of claim 11, combined with other features and elements of the claims.

Other prior art cited

8. Prior art of record cited and not relied upon is considered pertinent to applicant's disclosure.

The US Patent 6,570,997; US Patent Application 2003/0021444 and US Patent 5,832,119 (Claims 7, 10, 16, 18 and 19 above would also be rejected under 102(b) and

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claims 12 and 12 would be rejected under 103(a) in view of Rhoads with reference to embedding of the registration pattern and detecting of the same) variously teach embedding of watermark information related to applicant's invention as claimed.

Contact information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shervin Nakhjavan whose telephone number is (703) 306-5916. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, DC 20231

Or faxed to:

(703) 872-9306 for *formal* communications, please mark "**EXPEDITED PROCEDURE**"

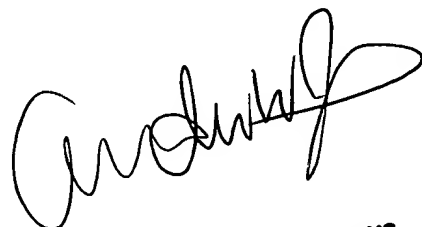
or:

for *informal* or *draft* communications; please label "**PROPOSED**" or "**DRAFT**".

Hand delivered responses should be brought to Crystal Park 2, 2121 Crystal drive, Arlington, VA, sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Tech center 2700 customer service office (703) 306-0377.

Shervin Nakhjavan *S.N.*
Patent Examiner
Group Art Unit 2621
March 30, 2003.



**ANDREW W. JOHNS
PRIMARY EXAMINER**